

Reply to Office Action dated December 1, 2006

REMARKS

Claims 1, 3-19, 21-34 and 36-47 are pending in this application. By this Amendment, the title, FIG. 5 and claims 1, 13, 15-16, 19, 26, 36, 38-40 and 46 are amended and claims 2, 20 and 35 are canceled without prejudice or disclaimer. Various amendments are made for clarity and are unrelated to issues of patentability.

The Office Action objects to the Title. The above new title corresponds to the title proposed in the Office Action. Withdrawal of the objection is respectfully requested.

The Office Action objects to the drawings because the FIG. 5 reference character "41" is not mentioned in the specification. The above replacement figure does not include the reference character "41". Withdrawal of the objection is respectfully requested.

The Office Action objects to claims 2 and 39 because of informalities. It is respectfully submitted that the above amendments obviate the grounds for objection. Withdrawal of the objection is respectfully requested.

The Office Action rejects claims 15 and 21-47 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The above amendments to independent claims 15 and 21 obviate the grounds for rejection since the terminologies of row electrodes and column electrodes have been deleted from the claims. Independent claim 39 is also amended to recite a first black layer formed between a portion of the first electrode and the first substrate. The specification and drawings fully support these features. Withdrawal of the rejection under 35 U.S.C. §112, first paragraph, is respectfully requested.

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The Office Action also rejects claim 13 under 35 U.S.C. §112, second paragraph. It is respectfully submitted that the above amendment to claim 13 obviates the grounds for rejection. Withdrawal of the rejection is respectfully requested

Applicant gratefully acknowledges the Office Action's indication that claims 7-11 and 20 contain allowable subject matter. By this Amendment, independent claim 16 is amended to include the allowable features of dependent claim 20. Thus, independent claim 16 defines patentable subject matter. Additionally, for the reasons set forth below, all claims are believed to be allowable.

The Office Action rejects claims 1-5, 12, 16-17, 19, 39-43 and 47 under 35 U.S.C. §102(b) by U.S. Patent Publication 2001/0011871 to Amemiya. The Office Action also rejects claims 6, 14 and 18 under 35 U.S.C. §103(a) over Amemiya. The rejections are respectfully traversed with respect to the pending claims.

Independent claim 1 recites a transparent electrode, a metal bus electrode, a first light shielding layer formed between the transparent electrode and the metal bus electrode on each discharge cell, and a second light shielding layer formed between the adjacent discharge cells. Independent claim 1 also recites that the first light shielding layer and the second light shielding layer are different from each other in at least one of a thickness thereof and a concentration of a pigment thereof, and that the first light shielding layer and the second light shielding layer are connected to each other.

Amemiya does not teach or suggest all the features of independent claim 1. More specifically, the Office Action appears to assert that Amemiya's black conductive layer Xb'

corresponds to the claimed first light shielding layer and that Amemiya's black light absorption layer 30 corresponds to the claimed light shielding layer. See Amemiya's FIG. 2.

Amemiya does not teach or suggest that the first light shielding layer and the second light shielding layer are connected to each other. Amemiya's FIG. 2 clearly shows that the black conductive layer Xb' is not connected to the black absorption layer 30. Thus, Amemiya does not teach or suggest all the features of independent claim 1. Thus, independent claim 1 defines patentable subject matter.

Independent claim 15 recites a plurality of first electrodes arranged on an internal surface of the first substrate, a dielectric layer formed on an internal surface of the first substrate and the plurality of first electrodes, and a plurality of second electrodes arranged on an internal surface of the second substrate. Independent claim 15 also recites that the dielectric layer includes a plurality of black layers between two vertically adjacent discharge cells, and the plurality of black layers includes a first black layer formed between a portion of the first electrodes and the first substrate, and a second black layer formed between adjacent first electrodes, and a thickness of the first black layer is less than 50% of a thickness of the second black layer. Independent claim 15 also recites that the second black layer has a same conductivity as the first black layer.

Amemiya does not teach or suggest all the features of independent claim 15. That is, Amemiya does not teach or suggest that a thickness of a first black layer is less than 50% of a thickness of a second black layer. The Office Action never discusses these specific features of independent claim 15. The Office Action (on page 10) appears to state that Amemiya's FIG. 2 shows a thickness of the first light shielding layer being thinner than a thickness of the light

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shielding layer. However, the Office Action relies on proportions of features within FIG. 2. M.P.E.P. §2125 states that proportions of features in a drawing are not evidence of actual proportions when the drawings are not to scale. Amemiya does not state that FIG. 2 is drawn to scale. As such, the Office Action may not rely on the proportions of features within Amemiya's FIG. 2 as asserted in the Office Action. Amemiya does not teach or suggest that a thickness of a first black layer is less than 50% of a thickness of the second black layer.

Additionally, Amemiya does not teach or suggest that the second black layer has a same conductivity as the first black layer (as recited in previous dependent claim 35). The Office Action does not address these specific features. Amemiya does not suggest that the black absorption layer 30 has a same conductivity as the black conductive layer Xb'. Thus, Amemiya does not teach or suggest all the features of independent claim 15. Thus, independent claim 15 defines patentable subject matter.

Independent claim 39 recites a plurality of first electrodes, a dielectric layer, and a plurality of second electrodes. Independent claim 39 also recites that the dielectric layer includes a plurality of black layers between two vertically adjacent discharge cells, the plurality of black layers include a first black layer formed between a portion of one of the first electrodes and the first substrate, and a second black layer formed outside of the first electrodes, and at least one portion of the first black layer has a same thickness as the second black layer.

For at least similar reasons as set forth above, Amemiya does not teach or suggest all the features of independent claim 39. Furthermore, Amemiya does not teach or suggest that the at least one portion of the first black layer has a same thickness as the second black layer. The

Office Action does not address this specific feature. Amemiya does not suggest that the black conductive layer Xb' has a same thickness as the black absorption layer 30. Thus, Amemiya does not teach or suggest all the features of independent claim 39. Thus, independent claim 39 defines patentable subject matter.

For at least the reasons set forth above, each of the independent claims 1, 15, 16 and 39 defines patentable subject matter. Each of the dependent claims depends from one of the independent claims and therefore defines patentable subject matter at least for this reason. In addition, the dependent claims recite features that further and independently distinguish over the applied references.

For example, dependent claim 3 recites that the second light shielding layer is commonly connected to the transparent electrodes formed in each of the adjacent discharge cells. See also dependent claim 4. The Office Action appears to assert that Amemiya's FIG. 2 shows these features. However, FIG. 2 does not suggest that a second light shielding layer is commonly connected (or electrically connected) to the transparent electrodes formed in each of the adjacent discharge cells. Accordingly, dependent claims 3 and 4 define patentable subject matter at least for these additional reasons.

Dependent claim 33 recites the first black layer is connected to the second black layer. See also dependent claims 23 and 47. Amemiya does not teach or suggest these features for at least the reasons set forth above. Thus, dependent claims 23, 33 and 47 define patentable subject matter at least for these additional reasons.

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Dependent claim 6 recites that the thickness of the first light shielding layer is thinner by about $0.1\mu\text{m} \sim 2\mu\text{m}$ than the thickness of the second light shielding layer. The Office Action states that FIG. 2 shows a thickness of the first light shielding layer being thinner than a thickness of the second light-shielding layer. However, for at least similar reasons as set forth above, the Office Action may not rely on proportions of features of a drawing unless the figure is drawn to scale. Therefore, the Office Action's assertion is incorrect. The Office Action then states that it would have been obvious to make the first light shielding layer thinner by about $0.1\mu\text{m}$ - $2\mu\text{m}$ than the thickness of the second light shielding layer. The Office Action cites M.P.E.P. §2144.05 II relating to claim ranges. However, the Office Action has not shown the claimed features within the prior art or within the $0.1\mu\text{m}$ - $2\mu\text{m}$ range. The Office Action's citation to M.P.E.P. §2144.05 II is not proper and/or is not relevant to the claimed features. Dependent claim 6 defines patentable subject matter at least for these additional reasons.

Each of dependent claims 14 and 18 also defines patentable subject matter. The Office Action cites M.P.E.P. §2144.05 II when rejecting these claims. However, the Office Action has not shown that the claimed features are in the prior art. Thus, dependent claims 14 and 18 define patentable subject matter at least for this additional reason.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of claims 1, 3-19, 21-34 and 36-47 are earnestly solicited. If the Examiner believes that any additional changes would place the

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application in better condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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FIG.5

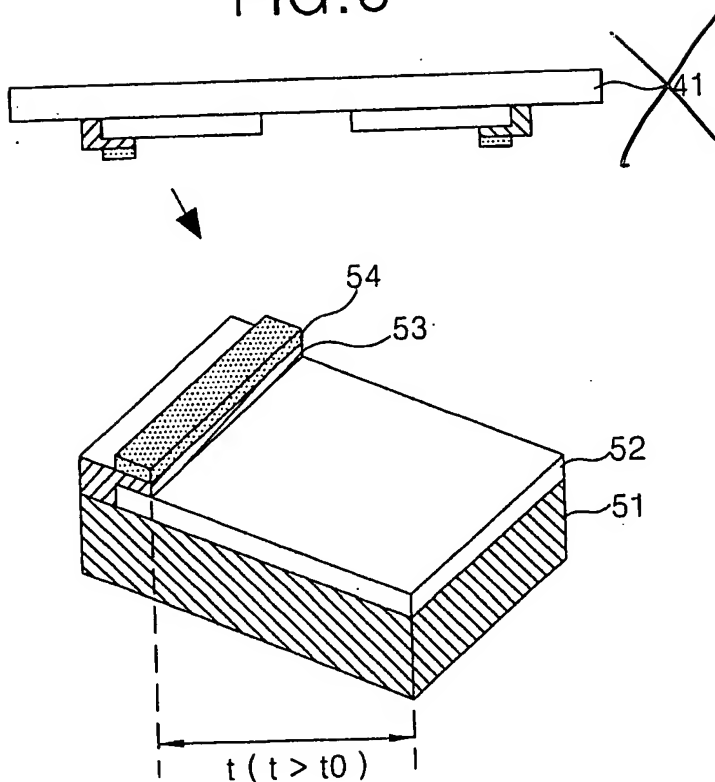
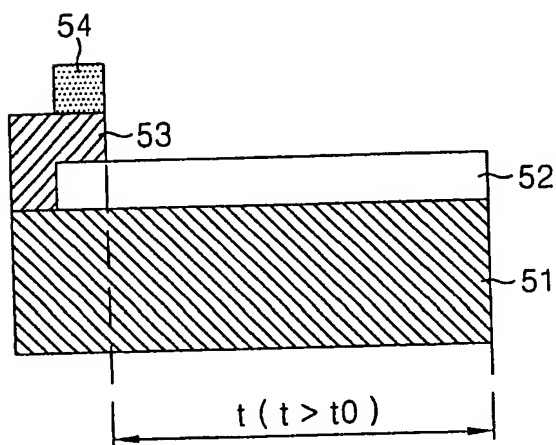


FIG.6



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AMENDMENTS TO THE DRAWINGS:

The attached drawing includes changes to Fig. 5. This sheet, which includes Fig. 5, replaces the original sheet including Fig. 5. In Fig. 5, element "41" is deleted.

Attachments: Replacement Sheet

Annotated Sheet Showing Changes